

new "slant" on an old friend



B-D VACUTAINER CASTANEDA CULTURE BOTTLE

This new addition to the VACUTAINER Culture Bottle line provides both *surface* and *broth* growth—a 2-in-1 blood culture that yields more data, saves time and equipment.

As with all VACUTAINER Culture Bottles, contamination is avoided by blood collection through a closed, sterile system ...additional bottles can be inoculated with the same venipuncture and B-D Blood Taking Unit...specimens can be taken *aerobically* or *anaerobically*.

a B-D **DISCARDIT** product

BECTON, DICKINSON AND COMPANY · RUTHERFORD, NEW JERSEY
In Canada: Becton, Dickinson & Co., Canada, Ltd., Toronto 10, Ontario

B-D, B-B-L, CASTANEDA, DISCARDIT, TRYPTICASE, AND VACUTAINER ARE TRADEMARKS.

10264

JUST PUBLISHED

THERMOPHILIC FUNGI

AN ACCOUNT OF THEIR BIOLOGY, ACTIVITIES, AND CLASSIFICATION

DONALD G. COONEY

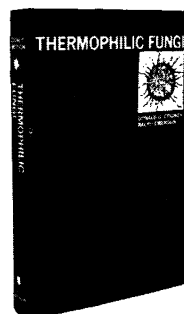
UNIVERSITY OF NEVADA

RALPH EMERSON

UNIVERSITY OF CALIFORNIA, BERKELEY

71 illustrations, 2 full-color illustrations

196 pages, \$5.00



This study is the first comprehensive comparison of all known thermophilic fungi, and its purpose is to lay the foundation for a true and complete picture of the thermophilic mold flora. Thirteen species are described, and detailed accounts of their occurrence under natural conditions, their morphology and cultural characteristics, and their temperature requirements for growth are presented. A diagnostic key to the thermophilic fungi and a bibliography of more than 200 references are included.

Thermophilic fungi have great potential significance in human affairs—in agriculture, industrial processes, and certain aspects of medical practice. Their practical importance, as well as their general biological significance, are discussed.

W. H. FREEMAN AND COMPANY
660 Market Street
San Francisco 4, California

Enclosed \$_____ (California residents add 4% sales tax).

Send _____ copies of THERMOPHILIC FUNGI on approval.

NAME _____

ADDRESS _____

**W. H. FREEMAN AND COMPANY**

660 Market St., San Francisco 4, Calif. / Werner House, 48 Upper Thames St., London, E.C.4.

Looking for a Job?

*For career opportunities in microbiology
register with the*

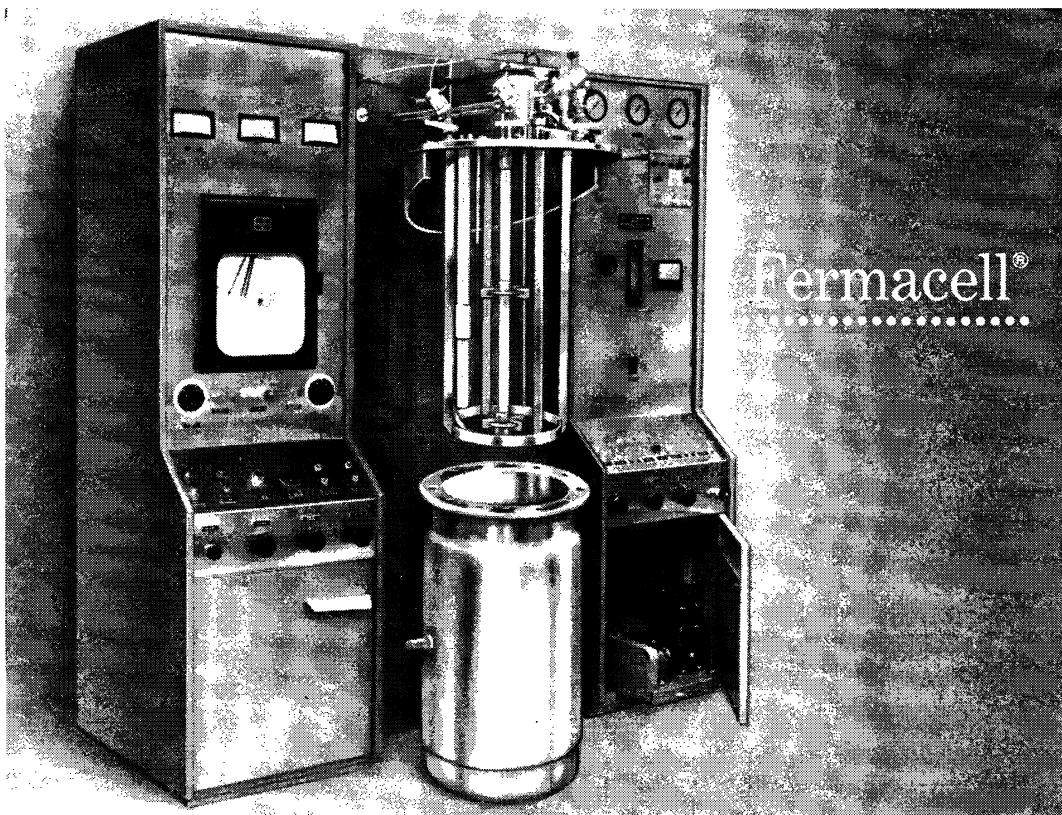
AMERICAN SOCIETY FOR MICROBIOLOGY PLACEMENT COMMITTEE

For registration forms write to:

ASM PLACEMENT COMMITTEE

Attn.: Raymond W. Sarber
115 Huron View Blvd.
Ann Arbor, Michigan

Your applications will be available throughout the year to employers in search of all types of microbiologists. Small registration fee required.



The Fermentor with the Removable Vessel

For laboratory, pilot-plant and small-scale production of microbial cells

The Fermacell is a general purpose fermentor used for basic laboratory research as well as pilot-plant and small-scale production of microbial cells. It is available in two sizes for working volumes up to 40 or 100 liters and is designed for batch production and continuous culture.

Rigid Control. This culturing apparatus is a completely steam-sterilizable system, fully integrated for rigid control of agitation, aeration, temperature, pressure, foam and pH. It

is used for growing aerobic and anaerobic bacteria, streptomycetes, molds and yeasts, as well as mammalian and plant tissue cultures.

Easy to Handle and Easy to Use.

The Fermacell's fermentor vessel can be removed quickly by one person in less than three minutes for cleaning as well as emptying and refilling. This design permits complete access to process lines, ports, and electrodes mounted in the stationary fermentor head plate.

FERMACELL FEATURES

Removable Fermentor Vessel is easy to handle, easy to clean; provides complete access to the fermentor interior.

Replaceable Shaft Seal Assembly is designed for repeated steam sterilization and a long life of positive sealing without danger of contamination. Seals are contained in a removable cartridge to facilitate inspection and replacement.

Rigid Temperature Control is maintained within $\pm 0.5^\circ\text{C}$ from 5°C above water supply temperature to 60°C .

Integral Recirculating Water Conditioning System circulates cold or heated water to fermentor jacket on control demand.

Send for 12-page Illustrated Catalog
FMR-124



NBS New Brunswick Scientific Co., Inc.
1130 Somerset Street, New Brunswick, New Jersey

Antimicrobial Agents and Chemotherapy 1964

Proceedings of the
Fourth Interscience
Conference on
Antimicrobial Agents
and Chemotherapy

NEW YORK, N.Y.
October 26–28, 1964

Sponsored by the American Society for Microbiology

Reports of basic research on the new antibiotics almarcetin, enteromycin carboxamide, evernomicin, hamycin, LL-AL471E, LL-AP191, monicamycin, rubiflavin, U-11,973, U-21,799, U-13,714, U-11,092, U-22,956, and others
Clinical evaluation of caphalothin, nafcillin, ampicillin, oxacillin, cloxacillin, dicloxacillin, methicillin, lincomycin, spectinomycin, nalidixic acid, tolnaftate, nitrofurantoin, colistin, capreomycin, gentamicin, rifomycin, and others
Symposia on Antiviral Drugs, Penicillins and Cephalosporins, Synthetic Antimicrobials, Mode of Action, and Antineoplastic Antibiotics
Communications of interest to microbiologists, chemists, pharmacologists, biochemists, clinicians, and pathologists
A valuable reference for laboratories and libraries

J. C. Sylvester, *Editor*

Approximately 800 pages

\$15.00

Available April 1965

To: AMERICAN SOCIETY FOR MICROBIOLOGY
115 Huron View Blvd., Ann Arbor, Michigan

Please enter my order for — copy(s) of *Antimicrobial Agents and Chemotherapy—1964* at \$15.00 per copy. (Available in Europe from the H. K. Lewis Co., Ltd., London.)

I also wish to order:

_____ copy(s) of the 1963 volume at \$12.00 per copy.

_____ copy(s) of the 1962 volume at \$12.00 per copy.

_____ copy(s) of the 1961 volume at \$10.00 per copy.

☐ Bill me.

☐ Payment enclosed.

(Make checks payable to American Society for Microbiology.)

NAME _____

ADDRESS _____

Announcement

Antibiotics

Antimicrobial Agents

Appplied Microbiology

American Society
for Microbiology

Anyone interested in laboratory and clinical studies of antibiotics and other antimicrobial agents should be advised that *Applied Microbiology*, the well-known and well-respected publication of the American Society for Microbiology, now publishes significant papers in all phases of applied research on antibiotics and other antimicrobials. The ASM is pleased to announce this added area of subject coverage in one of its principal journals, and invites *you* to contribute to, to subscribe to, to advertise in, and to read *Applied Microbiology*. We at ASM believe that *Applied Microbiology* will soon be *the* antibiotics journal, just as it already is *the* applied microbiology journal. In fact, this new emphasis might turn out to be the most important thing that's happened to antibiotics since Fleming forgot to close the window.

Applied Microbiology

George M. Savage, Editor

published bimonthly by the American Society for Microbiology

Subscription price, \$14 per year. Subscription agency, The Williams & Wilkins Co., 428 E. Preston St., Baltimore, Md. 21202.

89

B-B-L products for microbial sensitivity testing

SENSI-DISC Antimicrobial Discs—antibiotic and chemotherapeutic
SENSI-DISC Dispenser—multiple-disc
SENSI-DISC Dispenser—single-disc
RIMSEAL Sterile Disposable Plated Media

the right combination

FOR CONVENIENCE AND CONFIDENCE IN MICROBIAL SENSITIVITY TESTING. Uniformly reliable, reproducible results are, of course, routine with B-B-L SENSI-DISC Antimicrobial Discs and RIMSEAL Sterile Disposable Plated Media. But can you estimate how much time and effort are spared the busy laboratorian by eliminating tedious hand application of discs, preparation and sterilization of media, and processing of glassware and equipment?

With a flick of the lever, the SENSI-DISC Dispenser correctly positions up to eight discs on the inoculated medium. That's all. YOU select the RIMSEAL medium and any combination of SENSI-DISC Antimicrobial Agents of your choice.

Products of B-D LABORATORIES are available through your local distributor. Further information on request.



B-D LABORATORIES, INC., RUTHERFORD, NEW JERSEY



Baltimore
Biological
Laboratory



Falcon
Plastics

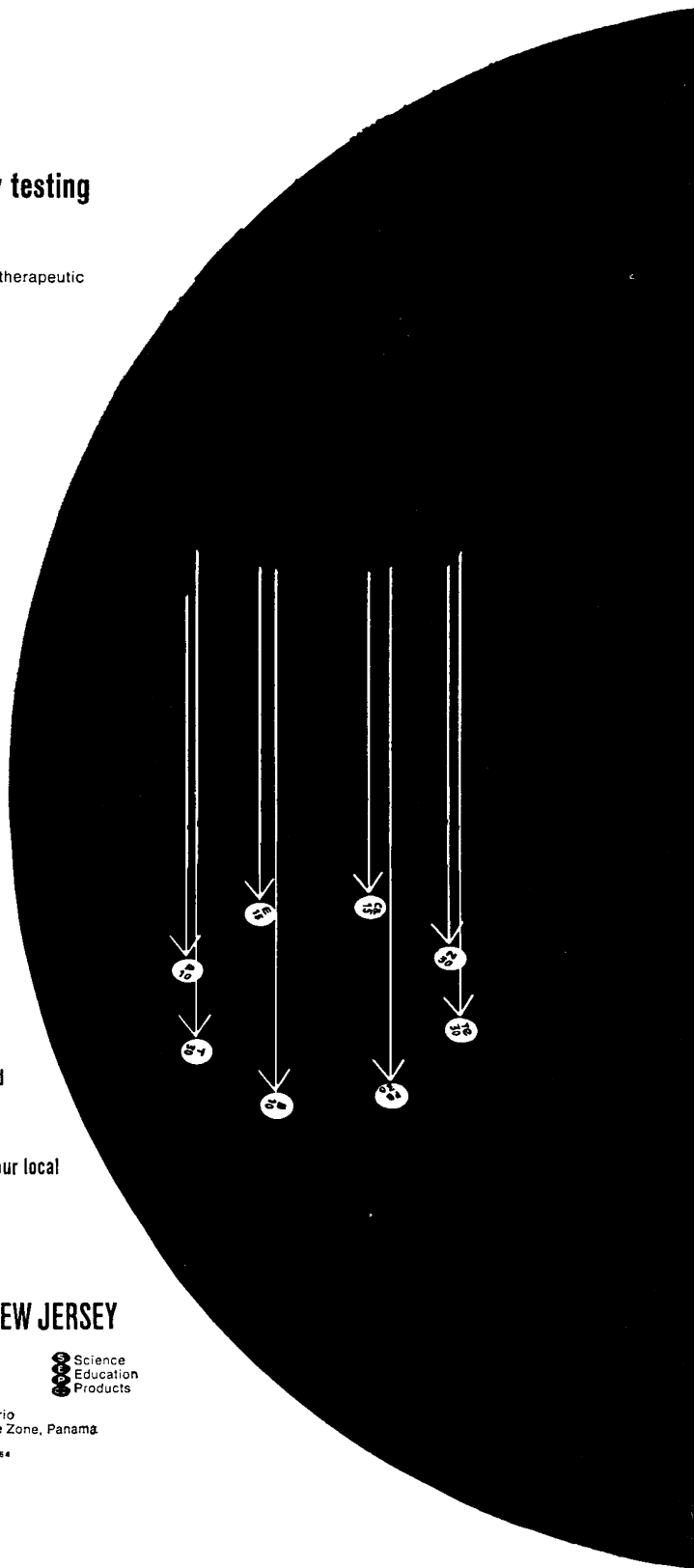


Science
Education
Products

In Canada: Becton, Dickinson, & Co., Canada, Ltd., Clarkson, Ontario
Overseas: Becton, Dickinson & Co., S.A., P.O. Box 1173, Colon, Free Zone, Panama

B-D, B-B-L, FALCON, RIMSEAL, SENSI-DISC, AND SEPCHO ARE TRADEMARKS.

07264





Antisera *and* Antigens

E. coli
ENTEROPATHOGENIC

Salmonella

Shigella

Klebsiella

Bethesda-Ballerup

Proteus
RICKETTSIAL

Brucella

Tularensis

Streptococci

Pneumococci

Meningococci

B. pertussis

C. albicans

Trichinella

H. influenzae

Leptospira

C. Protein Antiserum and Standard

Infectious Mononucleosis Antigens and Standards

Fluorescent Antibodies and Reagents

POTENT

STABLE

SPECIFIC

Descriptive literature on request

Specify

DIFCO LABORATORY PRODUCTS

BIOLOGICS

CULTURE MEDIA

REAGENTS